



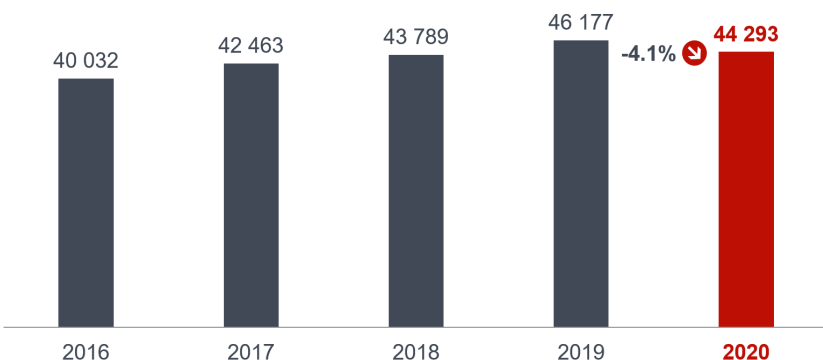
**EMBARGOED UNTIL
MARCH 16, 2021 AT 2:00AM EST**

U.S. Companies File 4.1% Fewer Patent Applications in Europe Amid Pandemic

- Healthcare innovation and digital tech drive U.S. patent applications in Europe
- U.S. transport sector patent applications drop by more than 20%
- Qualcomm most active U.S. patent applicant in Europe
- European Patent Office sees strong growth from China and South Korea while European and Japanese inventors also file fewer patents

Munich – March 16, 2021 – The European Patent Office (EPO) today announced that U.S. companies and inventors filed 4.1% fewer patent applications at the EPO in 2020 compared to the previous year, a total of 44,293, according to the EPO Patent Index 2020.

European patent applications – United States



It was the biggest drop among the main regions that account for the majority of patents filed at the EPO. Patent applications from Germany were down 3%, those from Japan by 1.1%, while strong increases came from China (+9.9%) and South Korea (+9.2%).

The overall number of European patent applications across all countries filed in 2020 remained stable, decreasing by 0.7% compared with the previous year. The EPO received 180,250 patent applications in total, which was slightly below the record level attained in 2019 (181,532).
(*Graph: Growth of European patent applications*).

The U.S. nonetheless remained the largest country of origin for European patent applications in 2020, accounting for almost a quarter of the total. After the U.S., Germany, Japan, China and France were the top filing countries in 2020. U.S. firms stayed in the lead in several key technology rankings, including medical technology (accounting for 38.6% of all patent applications at the EPO), computer technology (36.8% share), pharmaceuticals (39.1%), and biotechnology (31.4%).

“Despite the drop in European patent applications coming from the U.S. in 2020, American companies and inventors continued to drive innovation in a wide range of key technologies, including health care and digital,” said EPO President António Campinos. “Demand for patent protection in Europe remained high overall, but we see fluctuations across technology sectors and economic regions. While there is still uncertainty about the development of patenting activities in the months and years to come, we know that it is research and science, backed by a solid intellectual property system, that will foster innovation as the motor of recovery for a healthier world.”

U.S. firms lead in healthcare and digital technologies

Medical technology regained its position as the leading U.S. technology field for applications with the EPO. Last year’s top field, digital communication, was pushed to third position, computer technology came in second place, as in the previous year. Pharmaceuticals and biotechnology ranked fourth and fifth among the leading tech fields of the U.S.

Among the top 5 U.S. technology fields, the steepest growth was achieved in pharmaceuticals at +13.6% over 2019, while digital communication dropped by 2.2%, and biotechnology, medical technology and computer technology attained almost the same levels.

U.S. companies figured among the EPO’s top applicants in all of these fields, including medical technology (with Johnson & Johnson ranked 1st, Medtronic 2nd, Boston Scientific 4th, and BD 5th), pharmaceuticals (Merck ranked 2nd, Johnson & Johnson 3rd, and University of California 5th), biotechnology (Regeneron Pharmaceuticals 8th, University of California 10th), computer technology (Microsoft 2nd, Intel 3rd and Alphabet 4th) and digital communication (Qualcomm 2nd).

Strongest declines in terms of patent filings originating in the U.S. were recorded in transport technologies (-21.3%), which includes the automotive as well as aerospace industries, and in ‘engines, pumps, turbines’ (-29.2%), which includes many clean energy technologies. In the aircraft/aviation/aerospace sub-field of transport, U.S. companies Raytheon and Boeing filed 44% and 22.5% fewer patent applications, respectively.

Top 50 countries for patent applications 2020

	2020	Change		2020	Change		2020	Change			
1	United States	44 293	-4.1%	18	Israel	1 681	+8.8%	35	Czech Republic	205	+1.0%
2	Germany	25 954	-3.0%	19	Chinese Taipei	1 344	-15.9%	36	New Zealand	200	+11.1%
3	Japan	21 841	-1.1%	20	Ireland	970	+10.0%	37	Slovenia	165	+35.2%
4	P.R. China	13 432	+9.9%	21	Australia	958	-3.9%	38	Brazil	161	-16.1%
5	France	10 554	+3.1%	22	India	698	+8.7%	39	Hong Kong SAR (China)	156	+24.8%
6	R. Korea	9 106	+9.2%	23	Norway	646	0.0%	40	Greece	136	-3.5%
7	Switzerland	8 112	-1.9%	24	Turkey	594	+26.1%	41	Hungary	107	+10.3%
8	Netherlands	6 375	-8.2%	25	Singapore	577	+14.3%	42	Antigua and Barbuda	97	+142.5%
9	United Kingdom	5 715	-6.8%	26	Saudi Arabia	488	+34.1%	43	South Africa	89	+1.1%
10	Italy	4 600	+2.9%	27	Poland	483	+4.3%	44	United Arab Emirates	71	+65.1%
11	Sweden	4 423	+0.6%	28	Cayman Islands	458	-9.7%	45	Malta	65	+12.1%
12	Denmark	2 404	-0.5%	29	Liechtenstein	436	-0.2%	46	Cyprus	64	+33.3%
13	Belgium	2 400	-0.9%	30	Luxembourg	394	-5.1%	47	Thailand	63	-25.9%
14	Austria	2 303	-1.8%	31	Puerto Rico	290	-1.7%	48	British Virgin Islands	62	+5.1%
15	Finland	1 895	+11.1%	32	Russian Federation	264	+8.2%	49	Estonia	57	+18.8%
16	Spain	1 791	-5.0%	33	Barbados	260	+9.7%	50	Slovakia	55	+31.0%
17	Canada	1 760	-4.4%	34	Portugal	249	-8.5%				

Overall trend at the EPO: healthcare innovations surge, transport down

The patenting activities of U.S. firms are mirrored in the application developments overall: Among the leading technology fields, pharmaceuticals (+10.2%) and biotechnology (+6.3%) showed the biggest increases in terms of European patent filings. Medical technology (+2.6%) accounted for the most inventions in 2020, retaking the top spot from digital communication, which had been the most active field in 2019. Meanwhile, transport showed the largest drop (-5.5%), especially in the sub-fields of aircraft/aviation/aerospace (-24.7%), and to a lesser extent automotive (-1.6%).

Leading fields of technology – global

TOP10

	2020	Change	
1	Medical technology	14 295	2.6% ↗
2	Digital communication	14 122	1.0% ↗
3	Computer technology	13 097	1.9% ↗
4	Electrical machinery, apparatus, energy	11 346	0.4% ↗
5	Transport	9 020	-5.5% ↘
6	Pharmaceuticals	8 589	10.2% ↗
7	Measurement	8 582	-5.2% ↘
8	Biotechnology	7 246	6.3% ↗
9	Other special machines	6 261	-2.5% ↘
10	Organic fine chemistry	5 905	-1.5% ↘

Qualcomm new No. 1 U.S. patent applicant at the EPO

Qualcomm became the new No.1 U.S. patent applicant at the EPO, replacing United Technologies (now Raytheon), and filing a total 1,711 patent applications. Raytheon came in second (1,284 patent applications) followed by Alphabet (1,117), Microsoft (1,087), and Johnson & Johnson (1,049). (Graph: Top U.S. applicants at the EPO in 2020).

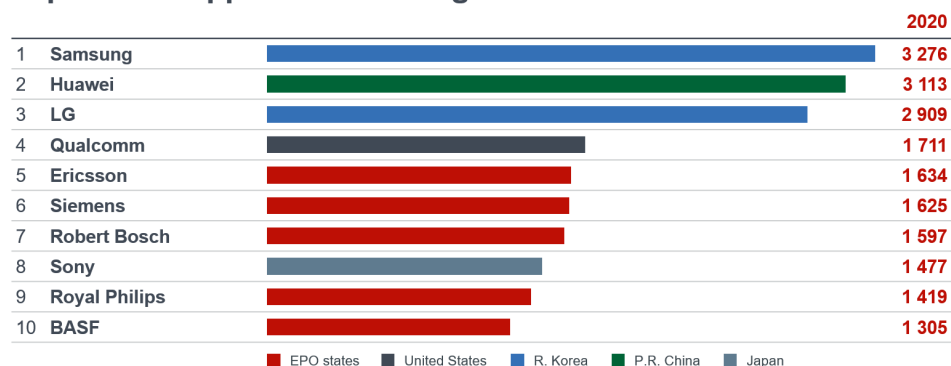
Top 30 applicants at the EPO in 2020 from United States

1	QUALCOMM	1 711	16	PROCTER & GAMBLE	463
2	RAYTHEON TECHNOLOGIES	1 284	17	ILLINOIS TOOL WORKS	364
3	ALPHABET	1 117	18	BOSTON SCIENTIFIC	337
4	MICROSOFT	1 087	19	CORNING	325
5	JOHNSON & JOHNSON	1 049	20	BECTON DICKINSON & COMPANY	320
6	INTEL	1 011	21	CARRIER GLOBAL	317
7	GENERAL ELECTRIC	775	22	NIKE	267
8	HP	699	23	MICRON TECHNOLOGY	260
9	MEDTRONIC	614	24	DEERE & COMPANY	259
10	3M	610	25	UNIVERSITY OF CALIFORNIA	222
11	HONEYWELL	538	26	EXXON MOBIL	216
12	DOW CHEMICAL	529	27	DOLBY LABORATORIES	200
13	THE BOEING	520	28	COMMSCOPE	171
14	APPLE	478	29	JUNIPER NETWORKS	152
15	INTERDIGITAL	470	29	MERCK	152

Samsung leads overall company ranking

The 2020 top applicant ranking reflects the sustained growth of patent applications from China and South Korea. Samsung took the top spot, followed by Huawei and LG.

Top 10 EPO applicants 2020 – global



For detailed statistics, see the EPO Patent Index 2020 at www.epo.org/patent-index2020

About the EPO

With 6 400 staff, the European Patent Office (EPO) is one of the largest public service institutions in Europe. Headquartered in Munich with offices in Berlin, Brussels, The Hague and Vienna, the EPO was founded with the aim of strengthening co-operation on patents in Europe. Through the EPO's centralized patent granting procedure, inventors are able to obtain high-quality patent protection in up to 44 countries, covering a market of some 700 million people. The EPO is also the world's leading authority in patent information and patent searching.

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